



COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

SENIOR STRUCTURAL ENGINEER

Class No. 003735

■ CLASSIFICATION PURPOSE

To perform supervisory duties for the plan review section; to provide guidance on the most complex structural engineering projects and provide technical assistance to others in the department; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

A Senior Structural Engineer is a supervisory level class, responsible for the activities and personnel involved in determining the adequacy of structural design and construction plans for a variety of structures.

■ FUNCTIONS

The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such functions are a logical assignment for the position.

Essential Functions:

1. Supervises subordinate civil and structural engineers in examining building construction plans, calculations, and specifications for compliance with model codes, state laws, ordinances, and regulations.
2. Directs, trains, and supervises civil and structural engineers engaged in evaluating and checking construction plan drawings for code compliance.
3. Trains and directs technical personnel in field construction inspection duties.
4. Trains, supervises, and provides consultation to a team of less experienced civil and structural engineers engaged in the examination of private construction proposals.
5. Trains and instructs building inspectors in code interpretation and construction methods and techniques.
6. Plans and coordinates review of structural details of architectural, mechanical, and electrical drawings and specifications.
7. Determines structural safety of existing buildings.
8. Resolves conflicts related to code interpretations/compliance and field construction problems.
9. Establishes design requirements for permit applications and construction specifications.
10. Prepares progress and productivity reports.
11. Prepares letters, policies, instructions, and reports associated with construction codes and regulations.
12. Acts as liaison between the construction industry and other governmental offices.
13. Assists with the development of office automation and permit information systems.
14. Initiates and implements process improvements.
15. Assists the division with special projects.
16. Provides courteous, high quality service to members of the public.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Theory and practices of civil and structural design, strength, and use of construction materials.
- Technical and mathematical principles of structural design strength/use construction materials.
- Principles and practices of land development, site preparation, and building construction techniques.
- California Building Codes, and state laws/regulations relating to energy, sound insulation, mobile homes, and disability access.
- Sources of structural and civil engineering design information.
- Management theory and supervisory techniques.
- County ordinances regulating grading drainage, street improvements, subdivisions, and land use regulations.
- Training methods.
- Public relations techniques.
- Principles of cost accounting and revenue tracking.
- The General Management System in principle and in practice.
- Telephone, office, and online etiquette.
- County customer service objectives and strategies.

Skills and Abilities to:

- Apply civil and structural engineering practices to practical modern-day engineering situations and problems.
- Formulate original engineering design, prepare calculations, draft construction drawings, and write specifications.
- Effectively communicate with public officials, private developers, professional engineers, architects, contractors, and owners/builders.
- Write clearly and effectively.
- Prepare letters, memos, and administrative, professional, and technical reports.
- Plan, instruct, supervise, and evaluate the work of subordinate staff.
- Communicate effectively with a variety of individuals representing diverse cultures and backgrounds and function calmly in situations, which require a high degree of sensitivity, tact and diplomacy.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.
- Assess the customer's immediate needs and ensure customer's receipt of needed services through personal service or referral.
- Provide prompt, efficient and responsive service.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. An example of qualifying education/experience is: a bachelor's degree from an accredited college or university in civil or structural engineering; AND five (5) years of experience as a plan check engineer or structural design engineer requiring the application of theories and principles of structural engineering design, two (2) years of which are at the level of, or equivalent to, a Civil Engineer with the County of San Diego

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Continuous upward and downward flexion of the neck. Frequent: standing, sitting, repetitive use of hands to operate computers, printers and copiers, and lifting and carrying files weighing up to 30 pounds. Occasional: walking, bending and twisting of neck, bending and twisting of waist, squatting, simple grasping, reaching above and below shoulder level.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment. Employees in this class may be required to use their own vehicle.

Certification/Registration

Registration by the State of California as a Professional Engineer (Business and Professional Code, Section 6730). ICBO Building Plans Examiner Certificate within two (2) years of date of hire.

Working Conditions

Office environment; exposure to computer screens.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in this class shall serve a probationary period of 12 months (Civil Service Rule 4.2.5).

New: April 26, 1971
Reviewed: Spring 2003
Revised: June 10, 2004